

It will be seen that the surface of the pool 7 is subject not only to the Venturi action in tube 5, but also to the suction of the pump 18 as the same draws fuel back to the supply tank. Thus, the surface of the pool is under pressure somewhat less than atmospheric. Hence, the vaporization of the pool surface is increased, the resulting vapors combining with the flow from the scrubbing chamber to the downdraft tube 5.

While the foregoing has illustrated and described what is now contemplated to be the best mode of carrying out the invention, the construction is, of course, subject to modification without departing from the spirit and scope of the invention. Therefore, it is not desired to restrict the invention to the particular form of construction illustrated and described, but to cover all modifications that may fall within the scope of the appended claims.

Having thus described the invention, what is claimed and desired to be secured by Letters Patent is:

1. A carburetor for an internal combustion engine having an exhaust and an intake manifold, and a downdraft tube leading to said intake manifold, comprising:

- (a) a housing having a flat, horizontal bottom and adapted to hold a shallow pool of fuel, said housing encircling said downdraft tube and mounted thereon,
- (b) an arcuate scrubbing chamber in said housing open at one end and closed at its other end to the interior of the housing and having a top and bottom spaced above the housing bottom provided with holes open to the pool of fuel,
- (c) a complement of radial baffles in said scrubbing chamber in arcuate arrangement and mounted vertically between the top and bottom of said scrubbing chamber,
- (d) a liquid fuel inlet terminating in a spray nozzle discharging into said scrubbing chamber adjacent its closed end,
- (e) means to conduct exhaust gases of said engine into said scrubbing chamber, said means terminating in a discharge for said exhaust gases directed toward said nozzle to commingle with the sprayed fuel emanating therefrom, thereby to produce a flow of

fumes-laden finely-divided fuel that includes larger globules and means positioning said baffles so the fumes flow in a serpentine path toward the open end of the chamber around and in contact with said baffles so the larger globules are intercepted and run down the faces of the baffles and discharged through the holes in the chamber bottom and into the mentioned pool of fuel in the housing,

(f) a pickup pipe for drawing excess fuel from the pool with its pickup end located in spaced relation to the housing bottom but closer thereto than is the bottom of the scrubbing chamber, thereby maintaining the level of the pool below said chamber bottom,

(g) the remainder of the fumes-laden fuel discharging from said open end of the scrubbing chamber into the housing, and

(h) a nozzle tube intersecting the downdraft tube open to said fumes-laden fuel in the housing and directed to discharge the same into a flow of air in said downdraft tube to provide a combustible fuel mixture.

2. A carburetor according to claim 1 in which the means for conducting the exhaust gases comprises a pipe in heat-exchange engagement with the housing to heat the fuel forming the pool therein to increase vaporization of the surface of said pool.

References Cited by the Examiner

UNITED STATES PATENTS

1,134,633	4/1915	Noll et al.	55—444
1,997,497	4/1935	Pogue	261—151
2,531,661	11/1950	Arvastsson	261—133

FOREIGN PATENTS

688,874	5/1930	France.
219,020	1926	Great Britain.

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